

REMARKS**I. Status of the Application.**

Applicant respectfully thanks the examiner for the office action of September 16, 2003, pointing out that the response submitted on July 8, 2003 was not fully responsive and for providing the opportunity to amend the July 8, 2003 response. This document is responsive to the office actions of April 8, 2003, and September 16, 2003. Consideration of the amendments and remarks submitted herein is respectfully requested.

Claims 1-18 of the present application are pending. In the April 8, 2003 Office Action, the Examiner (i) rejected claims 5 and 14 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite and (ii) rejected claims 1-18 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,030,253 to Tokuhiko et al ("Tokuhiko") in view of U.S. Patent No. 4,238,461 to de Vries ("DeVries").

In this response, Applicant (i) has amended claims 5 and 14 to overcome the Examiner's rejection of those claims under 35 U.S.C. § 112 and (ii) respectfully traverses the Examiner's rejection of claims 1-18 under 35 U.S.C. § 103(a) and requests reconsideration of the pending claims in view of the foregoing amendments and the following remarks.

II. The Rejection of Claims 5 and 14 Under 35 U.S.C. § 112 Should Be Withdrawn.

In the April 8, 2003 Office Action, the Examiner rejected claims 5 and 14 under 35 U.S.C. § 112, second paragraph, as being indefinite for failure to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the examiner noted that use of the phrase "for encouraging" was not clear. In this response,

Applicant has amended the phrase from "for encouraging" to "for effecting" to overcome the Examiner's rejection.

III. The Rejection of Claims 1-18 Under 35 U.S.C. § 103(a) Should Be Withdrawn.

In the April 8, 2003 Office Action, the Examiner rejected claims 1-18 under 35 U.S.C. § 103(a) as being unpatentable over Tokuhiko in view of DeVries. Applicant respectfully traverses the Examiner's rejection of claims 1-18 and requests that the rejection be withdrawn.

A. Applicant's Invention.

Independent claims 1, 5 and 14 are directed toward a vapor delivery system and method for neutralizing malodors in a malodorous area located outside of the vapor delivery system. As pointed out in the specification and claims, with particular reference to Fig. 14, a stream of ambient air from the atmosphere enters the air intake port (152) of the vaporization chamber (100). An outlet port (168) is positioned "**substantially diametrically opposed to the intake port**" in the vaporization chamber with "**no obstructions positioned therebetween**". This arrangement in Applicant's invention allows a stream of air to pass directly through the vaporization chamber by exiting the chamber directly across from the entry to the chamber, and thereby assists in encouraging a large volume of air to pass through the system, e.g., between 600 and 2000 cubic feet per minute (see page 15 of the specification). A nozzle (22) delivers a liquid deodorant into the vaporization chamber. The stream of ambient air travels through the vaporization chamber to create a stream of treated ambient air. The stream of treated ambient air is then released from the vaporization chamber to a distribution system.

B. Tokuhiko

Tokuhiko discloses a fragrant air supplying method and system. As shown in Fig. 2, the system includes an evaporator (17) having an air nozzle (37) and a fragrance nozzle (35)

positioned therein. A blower (16) provides compressed air to the evaporator through the air nozzle. The blower also provides air to an extension (28) through a pipe (39). The air provided to the vaporizer is designed to collide with an air buffer (38). (See Fig. 2). The air provided through the pipe is delivered to an impactor (18) after entering the extension (28). After passing through the impactor, fragrant air passes through a connection pipe (29) to an air duct (12) that distributes the air to a room. In an alternative embodiment of the invention, a vibrator is positioned between the extension (28) and an air receiving extension (45).

Tokuhiro does not disclose all the elements of independent claims 1, 5 or 14. For example, Tokuhiro does not disclose a vaporization chamber having "diametrically opposed" intake and outlet ports "having no obstructions positioned therebetween" as required in each of claims 1, 5, and 14. Instead, Tokuhiro requires an obstruction between the intake port and the outlet port that acts to mix the air and liquid (see col. 4, lines 20-21 and 60-63).

C. DeVries

DeVries discloses a mist scrubbing system for removal of odorous compounds from waste gas streams (see col. 2, lines 22-52). The system includes a chamber 11 having a nozzle 14 positioned at the top of the chamber (see the sole Figure 1 of DeVries). A feed gas is provided to the chamber through a gas entry means 10 positioned in close proximity to nozzle 14 in the top of a reaction chamber 11 (see col. 2, lines 37-40). A gas exit means 12 providing an exit from the reaction chamber is located at the opposite end of the reaction chamber from the gas entry means (see col. 2, lines 37-40). There is no disclosure of the conduit means being substantially diametrically opposed to the stack. In fact, as shown in Figure 1, and as disclosed in the specification at column 2, lines 37-40, the gas entry means 10 is clearly on the top of the chamber sidewall and the gas exit means 12 is clearly on the bottom of the chamber sidewall.

DeVries does not disclose all the elements of independent claims 1, 5 or 14. For example, like Tokuhiro, DeVries does not disclose a vaporization chamber having "diametrically opposed" intake and outlet ports "having no obstructions positioned therebetween" as required in each of claims 1, 5, and 14. Instead, DeVries discloses obstructions between the entry and exit to the reaction chamber by default because the entry and exit are not diametrically opposed. A gas flow entering the chamber can not pass directly through the chamber, but mixes within the chamber as the gas strikes the sidewall or floor of the chamber, thereby creating a baffle effect within the chamber.

D. Tokuhiro in View of DeVries

The Examiner has failed to establish a prima facie case that claims 1, 5 and 14 are unpatentable under 35 U.S.C. § 103(a) as obvious to Tokuhiro in view of DeVries. In order to establish a prima facie case of obviousness, the Examiner must meet at least three basic criteria. MPEP §2143. First, there must be some suggestion or motivation in the art to modify or combine the references. Second, there must be a reasonable expectation of success. Third, the prior art references, when combined, must teach or suggest all the claim limitations. The Examiner has failed to establish these criteria.

1. There is no motivation to combine the references.

First, there is no apparent suggestion or motivation in the references themselves or in the art to modify the references or combine reference teachings. When a motivation to combine the teachings of a reference is not immediately apparent, it is the duty of the Examiner to explain why the combination of the teachings is proper. MPEP § 2142. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

To prevent the "insidious effect of a hindsight syndrome where that which only the invention taught is used against its teacher", the examiner is required to show a motivation to combine references. *In re Kotzab*, 217 F.3d 1365 (Fed. Cir. 2000).

In the present case, the Examiner has not adequately explained why the combination of references is proper and, thus, a prima facie case of obviousness has not been established. *Id.* In the April 8, 2003 office action, the Examiner offers the following sentences as a motivation for combining the references: "since DeVries chamber is void of any obstructions then such a design would inherently encourage circulation of air within the chamber. It would have been obvious ... to modify the method and apparatus of Tokuhiro to design a vaporization chamber with no obstructions positioned between the intake port and the outlet port in order to allow unimpeded settling of liquid droplets produced by nozzle 14 in the gas contained within the vessel."

The Examiner's statements in the April 8, 2003 office action do not provide an adequate motivation or suggestion in the art for a combination of the references. For example, the Examiner states that "since DeVries chamber is void of any obstructions then such a design would inherently encourage circulation of air within the chamber." However, the reason that gas circulation is encouraged in DeVries is because the gas entry and exit are not diametrically opposed. In fact, because gas circulation is critical in the DeVries reaction chamber, a diametrically opposed gas entry and exit is not disclosed and no suggestion for such an arrangement is provided in the reference. Furthermore, Tokuhiro only discloses additional obstructions in the chamber to encourage the circulation of air within the chamber. There is no suggestion in Tokuhiro that a diametrically opposed air entry and exit port with no obstructions therebetween would be desirable. Accordingly, there is no suggestion or motivation in the

references to combine DeVries and Tokuhiro, and the Examiner has provided an inadequate explanation to justify the combination.

Furthermore, no suggestion or motivation to combine the references exists because the proposed modification would change the principle of operation of the prior art. MPEP § 2143.01. First, in the present case, the Examiner proposes to combine the delivery system of Tokuhiro with the exhaust system of DeVries. This would mean that the air entered into the chamber of Tokuhiro would be an exhaust gas as cited in DeVries. Of course, Tokuhiro involves a fragrant air delivery system and the introduction of exhaust gas into the system would change the principle of operation of Tokuhiro. Second, providing a diametrically opposed inlet and outlet port with no obstructions therebetween would drastically reduce the gas circulation in both the Tokuhiro chamber and the DeVries chamber. Air circulation within the chamber is important to the operation of both Tokuhiro and DeVries. Thus, because the modification proposed by the Examiner would change the principle of operation of the prior art, there is no suggestion or motivation to modify or combine the references, and the Examiner has failed to establish a prima facie case of obviousness.

2. There is no reasonable expectation of success.

Second, there is no reasonable expectation of success if the two references are combined. As discussed in the paragraphs above, combining the two references would change the principle of operation of the prior art. Accordingly, any suggestion to combine Tokuhiro and DeVries would not be met by a reasonable expectation of success.

3. The references alone or in combination do not teach the claim limitations.

Third, neither Tokuhiro nor DeVries, alone or in combination teach or suggest all of the claim limitations. As discussed above, neither Tokuhiro nor DeVries discloses a vaporization

chamber having an "intake port positioned on [a] sidewall substantially diametrically opposed to the outlet port" of the vaporization chamber "with no obstructions positioned between the intake port and the outlet port". The Examiner asserts that DeVries discloses a reaction chamber with no obstructions positioned between the gas entry and exit. However, as discussed above, the fact that the gas entry and exit in DeVries are not diametrically opposed results in obstructions positioned between the gas entry and exit. Combining Tokuhiko and DeVries does not result in the claimed invention.

Because, the Examiner has failed to establish a prima facie case that claims 1, 5 and 14 are unpatentable under 35 U.S.C. § 103(a), it is respectfully submitted that the Examiner's rejection of claims 1, 5 and 14 should be withdrawn. Additionally, because claims 2-4, 6-13 and 15-18 depend from and incorporate all of the limitations of independent claim 1, as amended, it is respectfully submitted that the Examiner's rejection of these claims should also be withdrawn.

IV. Conclusion

For all of the foregoing reasons, it is respectfully submitted that Applicant has made a patentable contribution to the art which clearly distinguishes over and is patentable over the cited art. Favorable reconsideration and allowance of this application is therefore respectfully requested.

In the event Applicant has inadvertently overlooked the need for an extension or payment of an additional fee, Applicant conditionally petitions therefore, and authorizes any deficiency to be charged to deposit account number 09-0007.

Sincerely,



Russell E. Fowler, II
Attorney for Applicant
Attorney Registration No. 43,615
ICE MILLER
One American Square, Box 82001
Indianapolis, Indiana 46282-0002
Telephone: (317) 236-5804
Facsimile: (317) 236-4252

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Enclosures: Return Postcard

cc: Randy Romack
Jim May